

a magnetic actuation plate micro-machined on said first substrate, said magnetic actuation plate having a first conductive surface; and

a second substrate provided adjacent to said magnetic actuation plate, said second substrate having a nonconductive surface and a second conductive surface,

where said first and second conductive surfaces define at least two switching states, including an open state in which the conductive surfaces are physically separated from each other, and a closed state in which the conductive surfaces physically contact each other, [and]

where said magnetic actuation plate, in the presence of a magnetic field, creates [an] a magnetostatic actuation force that causes the electrically conductive surfaces to switch from one of the switching states to another of the switching states, such that the magnetostatic actuation force causes said magnetic actuation plate to align itself with the magnetic field, and

where each relay is connected electrically to at least one corresponding winding and to power; and
a magnetic rotor having at least one pole positioned to induce a magnetic field in each MEMS relay when passing by the relay.

6. (Twice Amended) A DC motor comprising:
a plurality of windings;

at least one microelectronic mechanical system (MEMS) relay connected electrically to at least one of the windings and to power, where each relay [has] includes:

at least one substrate formed from a nonconductive or semiconductive material;

a springing beam etched on the substrate; and

two electrically conductive elements, one formed on the springing beam, that together define at least two switching states, including an open state in which the conductive elements are physically separated from each other, and a closed state in which the conductive elements physically contact each other;

where the springing beam includes a magnetic material which, in the presence of a magnetic field, creates [an] a magnetostatic actuation force that causes the electrically conductive elements to apply power to or remove power from at least one of the windings by switching from one of the switching states to another of the switching states, such that the magnetostatic actuation force causes said spring beam to align itself with the magnetic field; and

a magnetic rotor having at least one pole positioned to induce a magnetic field in each MEMS relay when passing by the relay.